

## **FY 2011 Energy and Water Development**

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### **21st Century Undergraduate Research Training and Instruction in Science, \$5,000,000**

*Eckerd College, Pinellas County, Florida*

Funds will be used to implement green building technology and integrate it into science curriculum. Faculty researchers in biomolecular chemistry and neurophysiology will collaborate with undergraduates. The project will encourage students to explore careers in science and inform citizens about modern science.

### **Atlantic Intracoastal Waterway, \$2,820,000**

*Florida Inland Navigation District, Palm Beach County, Florida*

Funds will be used for the maintenance dredging of Reaches 1 and 3 of the Atlantic Intracoastal Waterway (AIWW) in Duval and Nassau Counties. Current shoaling to as shallow as 5.5 feet is causing navigation problems for commercial and recreational vessels. The AIWW annually transports approximately 184,000 tons of commercial cargo provides \$1.2 billion in economic output, which includes \$378 million in personal wages and 10,212 jobs.

### **Brevard County Shore Protection Project, Mid Reach, \$160,000**

*Brevard County Board Of County Commissioners, Brevard County, Florida*

Funds will be used to help the US Army Corps complete pre-construction engineering and design for the Mid Reach of the Brevard County Shore Protection Project. The Mid Reach project provides hurricane and storm damage reduction for local infrastructure and residents. The project also preserves essential nesting beaches for 3 species of endangered and threatened marine turtles while producing an estimated 840 jobs.

### **Broward College South Campus Science Facility, \$1,481,000**

*Broward College, Broward County, Florida*

Funds will be used for the planning and construction of a science and research facility for Broward College's South Campus. The facility will reduce the current classroom overcrowding, address capacity, eliminate current modular and trailer classroom settings, and create temporary (construction) and permanent (faculty and staff) jobs.

### **Broward County Shore Protection Project, Segment III, \$5,000,000**

*Broward County, Florida*

Funds will be used to reimburse Broward County for a federally authorized, County-constructed beach restoration project. The funds will protect the continuity of the shore protection project that seeks to protect the shoreline for citizens.

### **City of Hollywood Water Distribution System Replacement, \$5,000,000**

*City Of Hollywood, Broward County, Florida*

Funds will be used to upgrade the City of Hollywood's water distribution system via pipe replacement and standardization. The project seeks to protect against pipe corrosion and leakage, water loss, and contamination concerns for citizens.

### **City of Miami Stormwater Project, \$1,500,000**

*City Of Miami, Miami-Dade County, Florida*

Funds will be used to pay for the design and construction of City of Miami storm sewer improvements. This project will help control the discharge of stormwater into the Miami River and Biscayne Bay and will improve the overall water quality of Miami's waterways.

**City of Port Richey Dredging, \$5,000,000**

*City Of Port Richey, Pasco County, Florida*

Funds will be used to finance an ongoing dredging project of approximately 30 channels and canals. The improved water flow will improve water quality throughout the Pasco County area and allow for better water quality for citizens.

**Completion of the General Reevaluation Report, \$250,000**

*Tampa Port Authority, Hillsborough County, Florida*

Funds will be used to complete the General Re-evaluation Report on proposed improvements to the Tampa main federal channel. Navigation restrictions in this area of the channel cause severe congestion throughout the Tampa Harbor. The improvements will reduce vessel operation costs, resulting in transportation cost savings, increased harbor safety and reduced cargo delivery delays. Tampa Port is a major economic engine, responsible for \$8 billion in economic impact and supporting over 16,000 jobs.

**Cost-Effective Green Renovations, \$1,350,000**

*Valencia Community College, Orange County, Florida*

Funds will be used to install new green technologies to improve building efficiency. The project will cut energy expenditures and help to neutralize emissions.

**Delray Beach Renourishment, \$680,000**

*City Of Delray Beach, Palm Beach County, Florida*

Funds will be used for the ongoing beach renourishment project in Palm Beach County (Delray Beach segment). The City has found the beach renourishment program to be the most successful method for controlling erosion. This project would help to preserve and maintain a tremendous beach asset on Florida's East Coast and help to restore the habitat for nesting marine turtles.

**Everglades and South Florida Ecosystem Restoration, \$4,200,000**

*Seminole Tribe Of Florida, Broward County, Florida*

Funds will be used to complete funding for the Everglades Restoration project. The project is designed and constructed to improve the hydrology in the Big Cypress Basin. These hydrology changes will benefit the ecology on the reservation and on the Big Cypress National Preserve by improving water quality and distribution

**Flagler College Laboratory Modernization Project, \$1,500,000**

*Flagler College, St. Johns County, Florida*

Funds will be used to improve educational and research capabilities in physical, biological, and earth sciences to meet the growing demand for graduates in these fields. The two laboratories will include classroom and seminar spaces and state-of-the-art equipment and materials. Flagler College's environmental science program is an essential component of a comprehensive network of science research and educational facilities in Northeast Florida.

**Flagler Beach Shoreline Protection Study, \$1,000,000**

*City Of Flagler Beach, Flagler County, Florida*

Funds will be used to complete the feasibility study of the Flagler County shoreline. The coastal shoreline of Flagler Beach and the county continues to experience critical erosion threatening State Road A1A which serves as an emergency evacuation route, significant loss of public recreation opportunities, and a degradation of environmental habitat.

**Florida Keys Water Quality Improvement Program, \$5,000,000**

*Cities of Key West, Marathon, and Key Largo, Monroe County, Florida*

Funds will be used to continue construction on wastewater and storm water infrastructure components as part of major environmental restoration project. This project will help protect human health, the Florida Keys National Marine Sanctuary, and the near shore environment of the entire Florida Keys region.

**Intracoastal Waterway, Caloosahatchee River to Anclote River, \$3,000,000**

*West Coast Inland Navigation District, Sarasota County, Florida*

Funds will be used for the maintenance dredging of the Intracoastal Waterway near Anna Maria Island, in the Boca Grande Bayou area, and the mouth of Caloosahatchee River. Currently, there is shoaling in these areas making it unsafe for commercial and recreational vessels. The Intracoastal Waterway channel provides for the safe passage of commercial goods, and access to commercial fishing grounds.

**Intracoastal Waterway, Jacksonville to Miami, \$5,000,000**

*Florida Inland Navigation District, Palm Beach County, Florida*

Funds will be used for the maintenance dredging of the Intracoastal Waterway (IWW), Jacksonville to Miami. Specifically, maintenance dredging is needed for the Indian River Reach, St. Augustine, St. Lucie Reach and Jupiter. The IWW is a critical part of Florida's eastern-shore economy, providing \$14.7 billion in economic output and 113,849 jobs.

**Jacksonville Harbor - Mile Point, \$2,500,000**

*Jacksonville Port Authority, Duval County, Florida*

Funds will be used to remediate navigation restrictions in the Jacksonville federal channel which present inefficiencies and safety concerns for the movement of vessels throughout the Jacksonville federal shipping channel. JAXPORT is northeast Florida's primary economic engine, generating approximately 50,000 jobs and \$2.7 billion in annual economic impact. It is critical that the channel be cleared in order to assure continued growth of trade and commerce.

**Jupiter/Carlin Segment of the Palm Beach County Shore Protection Project, \$5,000,000**

*Palm Beach County Board Of County Commissioners, Palm Beach County, Florida*

Funds will be used for maintenance of the beach adjacent to the Jupiter Inlet in Palm Beach County. The project is designed to provide long-term storm protection, retain sand within the coastal system, aesthetically enhance the area, and provide habitat for endangered plant and animal species. Additionally, the beaches serve as an economic engine.

**Lee County, FL (Gasparilla segment), \$1,717,411**

*Lee County, Florida*

Funds will be used to reimburse Lee County for the Federal share of construction of the Lee County (Gasparilla Island segment) storm damage reduction project, Approximately 442,000 jobs are created because of beach-related tourism, as beaches are the state's number one tourist attraction.

**Lido Key Shore Protection Project, \$500,000**

*City Of Sarasota, Sarasota County, Florida*

Funds will be used to continue the Preconstruction Engineering and Design (PED) phase of the Lido Key Shore Protection Project. Coastal erosion has been a long-term, persistent problem on Lido Key, threatening commercial and residential structures, as well as public infrastructure. The beach loses an average of 11 feet each year.

**Manatee Harbor, South Channel Extension, \$5,000,000**

*Port Manatee, Manatee County, Florida*

Funds will be used for the extension of an existing federal channel by approximately 1,600 feet southward by dredging to the authorized water depth of 40 feet with a 400 foot wide channel. Inadequate channel depth result in continued delays and lost business opportunities. Port Manatee is a major economic engine for the region, responsible for 22,500 jobs, with an annual local economic impact of \$2.3 billion.

**National Open-Ocean Energy Laboratory, \$2,000,000**

*Florida Atlantic University, Palm Beach County, Florida*

Funds will be used for the continued development of a national open ocean energy laboratory which is building the capability, infrastructure, expertise and strategic partnership needed to develop, test and deploy commercially-viable ocean energy systems to assist the Nation in managing its energy crisis and assist in the development of a commercial marine energy industry. The project is necessary to evaluate individual prototypes into the next level towards technology readiness. The Center for Ocean Energy Technology (COET) will enable industry to produce significant amounts of new energy to power Southeast Florida, making Florida less dependent on foreign oil.

**Phase III Dredging, Miami Harbor - Construction, \$5,000,000**

*Miami-Dade County, Florida*

Funds will be used to dredge the Miami Harbor federal channel so that the Port will be able to accommodate post panamax ships. The entrance channel will be widened to assure safety of ships negotiating the cross winds and currents at the existing channel's narrow opening. The Port of Miami is one of the nation's strongest economic engines, responsible for 176,000 jobs. By dredging to a depth of 50 feet, the Port of Miami will be able to double the amount of cargo it currently handles, making it competitive with nearby foreign ports such as Freeport, Bahamas, which is already at the critical 50 foot depth.

**Phase III Dredging, Miami Harbor - Operations and Maintenance, \$200,000**

*Miami-Dade County, Florida*

Funds will be used for maintenance dredging of the Miami Harbor. Shoaling material above the current depth needs to be removed to allow for efficient navigation. It is essential that

the current channel depth be maintained to assure safe and efficient operations in the federal harbor.

**Pinellas County Beach Erosion Control, \$5,000,000**

*Pinellas County, Florida*

Funds will be used to support renourishment and restoration of 9 miles of critically eroded Sand Key Beach from Clearwater to North Redington Beach in west-central Pinellas County. This project will support beach erosion control, prevent flooding, and support tourism activities which result in significant economic activity for the community.

**Ponce de Leon Inlet, FL (South Jetty Extension), \$4,500,000**

*Volusia County, Florida*

Funds will be used to provide appropriate protection of the inlet from accelerated shoaling rates and hazardous boating conditions. Completion of the south jetty project will capture littoral drift and sedimentation that would otherwise deposit in the mouth of the inlet. Stabilizing the inlet will improve safety conditions for businesses and Coast Guard operations.

**Regional Reclaimed Water System, \$1,000,000**

*Charlotte County, Florida*

Funds will be used for Phase 2 design and construction of approximately a 4.5-mile transmission main that will convey reclaimed water from the western end of Central Charlotte County, across the Myakka River to our West Port and Rotonda Water Reclamation Facilities, coupled with an Aquifer Storage & Recovery well. By offsetting reclaimed water for approximately 954,000 gallons per day of potable water, there will be more potable water available in the region for drinking purposes. Southwest Florida is experiencing a serious drought and finding ways to reduce the demand on the potable water system is critical.

**Reverse Osmosis Water Treatment Plant, \$5,000,000**

*Florida Keys Aqueduct Authority, Monroe County, Florida*

Funds will be used to provide six million gallons per day of drinking water to the Florida Keys through a new reverse osmosis treatment facility and associated wellfield. The wellfield will draw brackish water from the Floridan Aquifer, approximately 1,200 feet below grade. The Florida Keys Aqueduct Authority is the sole provider of potable water to the Florida Keys, delivering drinking water to 75,000 residents and over 3.3 million seasonal residents and tourists every year. This project will protect and enhance the waters of the Everglades by limiting withdrawals from the Biscayne aquifer.

**St. Johns County Beach Renourishment, \$5,000,000**

*St Johns County, Florida*

Funds will be used to design and construct a beach renourishment near St. Augustine Beach. The project provides for initial restoration of a protective beach. The purpose of this project is to lessen down drift shoreline impacts caused by the federal navigation channel at St. Augustine Inlet, and to provide storm damage protection to the shore. Due to storms and noreasters in the last couple of years there is a need to renourish the beach.

**Section 203 Project PED, \$2,300,000**

*Canaveral Port Authority, Brevard County, Florida*

Funds will be used to to complete the Planning, Engineering, and Design (PED) Feasibility Study for Canaveral Harbor. The harbor needs to deepen and widen access channels and basins to dramatically improve the navigational safety of ships carrying cargo and passengers.

**St. Lucie Inlet, \$5,000,000**

*Martin County, Florida*

Funds will be used to dredge the St. Lucie Inlet. The St. Lucie Inlet has been rated as the most dangerous inlet on the East Coast. Dredging is particularly important to maintain safe navigation. The Inlet averages over 800 boat trips per day, supports a vital commercial fishing industry, and supports over 4,000 jobs.

**Walton County Shore Protection Project, \$250,000**

*Walton County, Florida*

Funds will be used to complete preconstruction, engineering, and design of the Walton County Shore Protection Project. Walton County manages 20 of the 26 miles of gulf-front shoreline in Walton County. Hurricanes Erin and Opal in 1995, and Hurricanes Earl and Georges in 1998 critically eroded Walton County's beaches.

**Water Resources Facility Solar Energy Project, \$1,100,000**

*City Of St. Petersburg, Pinellas County, Florida*

Funds will be used to construct an on-site renewable energy system using a Photovoltaic (PV) technology and battery storage. The Water Resources Administration Building was designed to set the standard for water efficiency and innovation in water and wastewater technology. The facility is projected to consume 190,000 kWh of annual electricity. The project will offset 50% of the building's annual energy consumption.

**West-Central Florida Water Restoration Action Plan-Upper Peace, \$2,500,000**

*Southwest Florida Water Management District, Hernando County, Florida*

Funds will be used to restore surface water flows and to improve water quality. This initiative provides a critical link to a major greenway that extends from Florida's lower west coast up through the Peace River watershed to the Ocala National Forest. The Peace River ecosystem routinely suffers from algae blooms during periods of low flows & warm weather. These events not only affect the fish and wildlife associated directly with the river and estuary but also affect the region's largest potable surface water supply system. The project will improve natural systems along the river, restoring habitat where historic mining has altered the landscape.